18. (Amended) An optical waveguide structure comprising:

an optical waveguide having a bend and being formed of a photosensitive material and having a bend for coupling the light signal around the bend; and

a grating structure arranged to guide light of a predetermined wavelength around the bend in the waveguide, thereby reducing bending losses at the bend, the grating structure comprising UV-induced refractive index variations in the waveguide.

19. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure comprises a chirped grating.

20. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure comprises a sampled grating.

21. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure is disposed to guide the light in a reflection mode.

22. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure is disposed to guide the light in a transmission mode.

23. (Cancelled)

24. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure comprises a continuous grating.

25. (Cancelled)

26. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the grating structure includes regions of constant reflective index which extend in a propagation direction of the waveguide.

27. (Amended) An optical waveguide structure as claimed in claim ~~29~~26, wherein the regions extend parallel to the propagation direction.

28. (Amended) An optical waveguide structure as claimed in claim ~~30~~27, wherein the regions extend cylindrically parallel to the propagation direction.

29. (Amended) An optical waveguide structure as claimed in claim ~~30~~27, wherein the regions extend ellipsoidally parallel to the propagation direction.

30. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the device further comprises at least one optical reflector disposed in a direction transverse to a propagation direction of the waveguide to aid in guiding the light around the bend.

31. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the device comprises two or more grating structures angularly disposed with respect to each other to guide the light around a plurality of bends in the waveguide.

32. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein each grating structure is formed by UV-holography.

33. (Amended) An optical waveguide structure as claimed in claim ~~21~~18, wherein the waveguide structure is a sensor further comprising means for measuring an intensity of the light at a predetermined point along the waveguide for determining changes in intensity due to induced changes in confinement conditions of the sensor.

34. (Amended) A method of ~~adapting~~reducing bending losses in a photosensitive waveguide ~~to guide light of a predetermined wavelength around~~having a bend for coupling a light signal propagating in the waveguide around the bend, comprising:

using UV light to induce refractive index variations in the waveguide such that at least one grating structure is formed, wherein the grating structure is disposed to guide the light around the bend.

Please add the following new Claims 35-48.

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35. (New) A method according to claim 34, wherein the grating structure creates an angular dispersion in the light propagated around the bend.

36. (New) A method according to claim 35, wherein the grating structure creates a chirped signal.

37. (New) A method according to claim 34, wherein UV holography is used to form the grating structure.

38. (New) An optical waveguide structure comprising:

an optical waveguide having a bend and being formed of a photosensitive material; and

a grating structure arranged to guide light of a predetermined wavelength in a transmission mode around the bend in the waveguide, the grating structure comprising UV-induced refractive index variations in the waveguide.

39. (New) An optical waveguide structure as claimed in claim 38, wherein the grating structure comprises a chirped grating.

40. (New) An optical waveguide structure as claimed in claim 38, wherein the grating structure comprises a sampled grating.

41. (New) An optical waveguide structure as claimed in claim 38, wherein the device further comprises at least one optical reflector disposed in a direction transverse to a propagation direction of the waveguide to aid in guiding the light around the bend.

42. (New) An optical waveguide structure as claimed in claim 38, wherein the device comprises two or more grating structures angularly disposed with respect to each other to guide the light around a plurality of bends in the waveguide.

43. (New) An optical waveguide structure as claimed in claim 38, wherein each grating structure is formed by UV holography.

44. (New) An optical waveguide structure as claimed in claim 38, wherein the waveguide structure is a sensor further comprising means for measuring an intensity of the light at a predetermined point along the waveguide for determining changes in intensity due to induced changes in confinement conditions of the sensor.

45. (New) A method of adapting a photosensitive waveguide to guide light of a predetermined wavelength around a bend in the waveguide, comprising:

using UV light to induce refractive index variations in the waveguide such that at least one grating structure is formed, wherein the grating structure is disposed to guide the light in a transmission mode around the bend.

46. (New) A method according to claim 45, wherein the grating structure creates an angular dispersion in the light propagated around the bend.

47. (New) A method according to claim 46, wherein the grating structure creates a chirped signal.

48. (New) A method according to claim 45, wherein UV holography is used to form the grating structure.